| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 09/679,456 | 10/04/2000 | Stephen A. Rago | 3728-109US | 7545 |

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| EXAMINER |
|---|
| GYORFI, THOMAS A |

| ART UNIT | PAPER NUMBER |
|---|---|
| 2135 | |

DATE MAILED: 06/27/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

| | | Application No. | Applicant(s) |
|---|---|---|---|
| **Office Action Summary** | | 09/679,456 | RAGO, STEPHEN A. |
| | | Examiner | Art Unit |
| | | Tom Gyorfi | 2135 |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1) ☒ Responsive to communication(s) filed on _28 April 2005_.

2a) ☒ This action is **FINAL**.     2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4) ☒ Claim(s) _1-3, 6-9, 16-27 and 33-40_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) _1-3, 6-9, 16-27 and 33-40_ is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

## DETAILED ACTION

1.      Claims 1-3, 6-9, 16-27, and 33-40 remain for examination.  The correspondence
filed 4/28/05 added claims 33-40.

## *Response to Arguments*

2.      Applicant's arguments filed 4/28/05 have been fully considered but they are not
persuasive.  Applicant argues, "*Assuming for the sake of argument that it would have been obvious
to use a Unix file system driver in the invention of Soltis, Soltis still does not teach providing to the client a
description of that file system driver that 'does not include a data structure comprising file information,' as
recited in claims 1, 16, 20, and 25.  Further assuming that it would have been obvious to use any
particular file system in the invention of Soltis, that does not make obvious providing to the client
information describing the file system but not comprising actual file information. The specification points
out the possibility of using file system algorithms as formal descriptions, and uses Unix file systems as an
example, but it is the providing of the description, not the details of it, that is non-obvious.*" Examiner
disagrees with this contention.  The claims do not recite that the file system **driver** is
provided to the client.  Rather, the driver exists on the client as previously cited in Soltis;
further, Applicant's admission makes it clear that such a driver would necessarily
implement algorithms that provide the claimed functionality of providing a formal
description without including a data structure including file information.  Regarding
reading limitations from the specification into the claims, see *In re Van Geuns*, 988 F.2d
1181, 26 USPQ2d 1057 (Fed. Cir. 1993).  With respect to the use of algorithms as
formal descriptions of the files, the claims that recite that limitation were not present at
the time of the previous Office Action; consequently, they are addressed below.

### *Claim Rejections - 35 USC § 103*

3.      The text of those sections of Title 35, U.S. Code not included in this action can

be found in a prior Office action.

4.      Claims 1-3, 6-9, 16-27, and 37-40 are rejected under 35 U.S.C. 103(a) as

obvious over Soltis et al. (U.S. Patent 6,493,804) and further in view of Applicant

Admitted Prior Art (hereinafter "AAPA").


Referring to Claim 1:

Soltis discloses a method comprising the steps of: attaching said client to said file

system (col. 8, lines 20-30; col. 10, lines 5-15); and reading a formal description of the

file system by said client from said disc storage device, wherein the formal description

of the file system enables said client to find and interpret at least one data structure

comprising file information which enables the client to directly read and write data to and

from said disc storage device without requiring further knowledge of said file system

(col. 6, lines 10-15; col. 11, lines 50-60; col. 12, lines 10-15; col. 14, lines 55-60), block

allocation for the data being performed by the server (col. 6, lines 30-60; col. 14, lines

40-55).

Although Soltis does not explicitly teach "wherein the formal description of the file

system does not include a data structure comprising file information", Soltis does

disclose that at least one embodiment of the invention can be implemented upon a Unix

file system (col. 13, lines 30-63). Furthermore, AAPA discloses the existence of

algorithms that are typically found in Unix file system drivers [the software that

implements a Unix file system] that provide data structures that do not include file information (AAPA: Specification, page 11, lines 19-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use at least one of the algorithms disclosed by AAPA as part of the file system drivers inherent to Soltis. The motivation for doing so would be to re-use existing, debugged software technology as a stable base for building a new platform upon.

Referring to Claims 16, 20 and 25:

Soltis discloses a method for reading or writing data from a storage source comprising: acquiring a description of a file system associated with a storage resource from the storage resource, wherein the description of the file system enables a client to find and interpret at least one data structure comprising file information (col. 11, line 60-col. 12, lines 15; col. 14, lines 55-60); and finding and interpreting at least one data structure comprising file information for reading or writing directly to the storage resource based on the file information without requiring further knowledge of said file system (col. 6, lines 10-15) block allocation for the data being performed by the server (col. 6, lines 30-60, col. 14, lines 40-55).

Although Soltis does not explicitly teach "wherein the description of the file system does not include a data structure comprising file information", Soltis does disclose that at least one embodiment of the invention can be implemented upon a Unix file system (col. 13, lines 30-63). Furthermore, AAPA discloses the existence of algorithms that are typically found in Unix file system drivers [the software that

implements a Unix file system] that provide data structures that do not include file information (AAPA: Specification, page 11, lines 19-22). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use at least one of the algorithms disclosed by AAPA as part of the file system drivers inherent to Soltis. The motivation for doing so would be to re-use existing, debugged software technology as a stable base for building a new platform upon.

Referring to Claim 2:

Soltis in view of AAPA disclose the limitations of Claim 1 above. Soltis further discloses reading enough information to find and interpret the physical block and offset containing a given file's inode given its inode number (col. 12, lines 40-45).

Referring to Claim 3:

Soltis in view of AAPA disclose the limitations of Claim 2 above. Soltis further discloses reading enough information to find and interpret the block list of a given file given an offset into the file and a length (col. 13, lines 15-30, 55-60).

Referring to Claim 6:

Soltis in view of AAPA disclose the limitations of Claim 3 above. Soltis further discloses sending a mount request; and receiving a mount response (col. 9, line 25-30)

Referring to Claim 7:

Soltis in view of AAPA disclose the limitations of Claim 6 above. Soltis further

discloses said formal description of the file system read in step b. is saved for future use

when a read request or a write request is made by said client (col. 9, line 45-50)

Referring to Claim 8:

Soltis in view of AAPA disclose the limitations of Claim 7 above. Soltis further

discloses said disc storage device is located in a Storage Area Network (SAN) (col. 8,

lines 15-20).

Referring to Claim 9:

Soltis in view of AAPA disclose the limitations of Claim 7 above. Soltis further

discloses client is located in said server (col. 10, lines 5-15).

Referring to Claims 17, 21 and 26:

Soltis in view of AAPA disclose the limitations of Claims 16, 20 and 25 above.

Soltis further discloses reading or writing data blocks associated with the file system

(col. 13, lines 15-30, 55-60).

Referring to Claims 22 and 27:

Soltis in view of AAPA disclose the limitations of Claims 20 and 25 above. Soltis further discloses a computer configured to read and write files associated with the file system (col. 13, lines 30-40).

Referring to Claims 18 and 23:

Soltis in view of AAPA disclose the limitations of Claims 16 and 22 above. Soltis further discloses finding and interpreting a block and an offset associated with a file on said file system based on a file identifier (col. 12, lines 40-45).

Referring to Claims 19 and 24:

Soltis in view of AAPA disclose the limitations of Claims 18 and 22 above. Soltis further discloses finding and interpreting a block list associated with a file based on an offset into the file and a length (col. 13, lines 15-30, 55-60).

Referring to claims 37-40:

AAPA and Soltis disclose the limitations of claims 1, 16, 20, and 25 above. Soltis does not teach wherein the formal description of the file system includes an algorithm used to implement the file system (evidenced by the lack of an algorithm element in the complete illustrations of Figures 5 and 6).

5.      Claims 33-36 are rejected under 35 U.S.C. 103(a) as being unpatentable over

AAPA and Soltis as applied to claims 1, 16, 20, and 25 above; and further in view of

Jones (U.S. Patent 5,752,005).

Regarding claims 33-36:

        AAPA and Soltis disclose the limitations of claims 1, 16, 20, and 25 above.

Neither Soltis nor AAPA teaches wherein the formal description of the file system

includes an algorithm used to implement the file system. However, Jones teaches

wherein a formal description of the file system includes an algorithm used to implement

the file system (col. 4, lines 30-38; col. 5, lines 25-50). It would have been obvious to

one of ordinary skill in the art at the time the invention was made to include an algorithm

used to implement the files system in a formal description. The motivation for doing so

would be to simplify the design of the native file system driver while adding the ability to

support foreign file systems (col. 2, lines 35-47).

### *Conclusion*

6.      The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure:

- U.S. Patent 6,324,581 issued to Xu et al.

7.      Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action.  Accordingly, **THIS ACTION IS MADE FINAL.**  See MPEP

§ 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action.  In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action.  In no event, however, will the statutory period for reply expire later

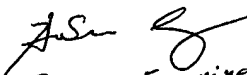than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Tom Gyorfi whose telephone number is (571) 272-3849.

The examiner can normally be reached on 8:00am - 4:30pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kim Vu can be reached on (571) 272-3859.  The fax phone number for the

organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner
Art Unit 2135

TAG
6/21/05